

IN THE CLAIMS:

Amended claims follow:

1. (Currently Amended) A method for managing user attributes in a distributed computing system, wherein user attributes determine access rights to a computer application: the method comprising:

modifying an attribute database in order to create modifications, wherein the attribute database includes a plurality of possible user attributes and a data structure identifying a plurality of users;

obtaining an identity certificate from a certificate authority;

associating the identity certificate with a user from the plurality of users within the attribute database, thus creating more of the modifications;

assigning an attribute from the plurality of possible user attributes to the user, ~~whereby the user is granted access rights based on the attribute and the identity certificate~~;

storing the attribute assigned to the user into the attribute database, thus creating more of the modifications; and

distributing the modifications to the attribute database to a plurality of hosts coupled together by a network;

wherein the user is granted access rights based on the attribute and the identity certificate.

2. (Currently Amended) The method of claim 1, further comprising:
assigning a second attribute from the plurality of possible user attributes to the user, in addition to said attribute; and

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storing the second attribute assigned to the user into the attribute database, thus creating more of the modifications.

3. (Currently Amended) The method of claim 1, further comprising using secure communications ~~for~~when distributing the modifications to the attribute database to the plurality of hosts.

4. (Currently Amended) The method of claim 1, further comprising signing the attribute database with a cryptographic signature prior to the distributing to allow detection of unauthorized changes to the attribute database.

5. (Currently Amended) The method of claim 1, wherein a host of the plurality of hosts can distribute the modifications to the attribute database to a subordinate host in a tree architecture.

6. (Currently Amended) The method of claim 1, further comprising allowing the user to assume any attribute stored into the attribute database that is assigned to the user during the assigning.

7. (Currently Amended) The method of claim 1, further comprising: deleting the attribute assigned to the user from the attribute database, after the distributing, thus creating more of the modifications; and redistributing the modifications to the attribute database to the plurality of hosts.

8. (Original) The method of claim 1, wherein modifying the attribute database includes creating the attribute database.

9. (Currently Amended) A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for managing user attributes in a distributed computing system, wherein user attributes determine access rights to a computer application: the method comprising:

modifying an attribute database in order to create modifications, wherein the attribute database includes a data structure identifying a plurality of possible user attributes and a plurality of users;

obtaining an identity certificate from a certificate authority;

associating the identity certificate with a user from the plurality of users within the attribute database, thus creating more of the modifications;

assigning an attribute from the plurality of possible user attributes to the user, ~~whereby the user is granted access rights based on the attribute and the identity certificate~~;

storing the attribute assigned to the user into the attribute database, thus creating more of the modifications; and

distributing the modifications to the attribute database to a plurality of hosts coupled together by a network;

wherein the user is granted access rights based on the attribute and the identity certificate.

10. (Currently Amended) The computer-readable storage medium of claim 9, the method further comprising:

assigning a second attribute from the plurality of possible user attributes to the user, in addition to said attribute; and

storing the second attribute assigned to the user into the attribute database, thus creating more of the modifications.

11. (Currently Amended) The computer-readable storage medium of claim 9, the method further comprising using secure communications ~~for~~when distributing the modifications to the attribute database to the plurality of hosts.

12. (Currently Amended) The computer-readable storage medium of claim 9, the method further comprising signing the attribute database with a cryptographic signature prior to the distributing to allow detection of unauthorized changes to the attribute database.

13. (Currently Amended) The computer-readable storage medium of claim 9, wherein a host of the plurality of hosts can distribute the modifications to the attribute database to a subordinate host in a tree architecture.

14. (Currently Amended) The computer-readable storage medium of claim 9, the method further comprising allowing the user to assume any attribute stored into the attribute database that is assigned to the user during the assigning.

15. (Currently Amended) The computer-readable storage medium of claim 9, the method further comprising:
deleting the attribute assigned to the user from the attribute database, after the distributing, thus creating more of the modifications; and
redistributing the modifications to the attribute database to the plurality of hosts.

16. (Original) The computer-readable storage medium of claim 9, wherein modifying the attribute database includes creating the attribute database.

17. (Currently Amended) An apparatus that facilitates managing user attributes in a distributed computing system, wherein user attributes determine access rights to a computer application: the apparatus comprising:

a modifying mechanism configured to modify an attribute database in order to create modifications, wherein the attribute database includes a data structure identifying a plurality of possible user attributes and a plurality of users;

an identity certificate obtaining mechanism configured to obtain an identity certificate from a certificate authority;

an associating mechanism configured to associated the identity certificate with a user from the plurality of users within the attribute database, thus creating more of the modifications;

an assigning mechanism configured to assign an attribute from the plurality of possible user attributes to the user, ~~whereby the user is granted access rights based on the attribute and the identity certificate~~;

a storing mechanism configured to store the attribute assigned to the user into the attribute database, thus creating more of the modifications; and

a distributing mechanism that is configured to distribute the modifications to the attribute database to a plurality of hosts coupled together by a network;

wherein the user is granted access rights based on the attribute and the identity certificate.

18. (Currently Amended) The apparatus of claim 17, further comprising:

the assigning mechanism that is further configured to assign a second attribute from the plurality of possible user attributes to the user, in addition to said attribute; and

the storing mechanism that is further configured to store the second attribute assigned to the user into the attribute database, thus creating more of the modifications.

19. (Currently Amended) The apparatus of claim 17, further comprising a secure communications mechanism configured to distribute the modifications to the attribute database to the plurality of hosts, during the distributing.

20. (Currently Amended) The apparatus of claim 17, further comprising a signing mechanism that is configured to sign the attribute database with a cryptographic signature prior to the distributing to allow detection of unauthorized changes to the attribute database.

21. (Currently Amended) The apparatus of claim 17, wherein the communications mechanism associated with a host of the plurality of hosts is configured to distribute the modifications to the attribute database to a subordinate host in a tree architecture.

22. (Currently Amended) The apparatus of claim 17, further comprising an authorization mechanism that is configured to authorize the user to assume any attribute stored into the attribute database that is assigned to the user during the assigning.

23. (Currently Amended) The apparatus of claim 17, further comprising:

a deleting mechanism that is configured to delete the attribute assigned to the user from the attribute database, after the distributing, thus creating more of the modifications; and

a redistributing mechanism that is configured to redistribute the modifications to the attribute database to the plurality of hosts.

24. (Original) The apparatus of claim 17, wherein the modifying mechanism is further configured to create the attribute database.